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ATTORNEY DOCKET NO.: REGEN1390-6

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:

Tsien and Griffin

Art Unit:

Not Yet Assigned

Parent Serial No.

10/126,752

Examiner:

Not Yet Assigned

Serial No.:

Parent Filing Date April 19, 2002

Filed:

Not Yet Assigned February 3, 2004

Title:

SYNTHETIC MOLECULES THAT SPECIFICALLY REACT WITH

TARGET SEQUENCES

Mail Stop PATENT APPLICATION

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

In accordance with 37 § CFR 1.97, Applicants bring to the Examiner's attention the related parent patent application, U.S. Serial No. 10/126,752, filed April 19, 2002, which is relied upon for an earlier filing date under 35 USC § 120. For the convenience of the Examiner, copies of the PTO Forms 892 and 1449 are enclosed.

It is respectfully requested that these references be considered in the examination of this application and their consideration be made of written record in the application file.

CERTIFICATION UNDER 37 CFR §1.10
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Λ
February 3, 2004
(Signature) / (Date)

In re Application of:

Tsien and Griffin

Application No.: Not Yet Assigned

Filed: February 3, 2004

Page 2

PATENT Attorney Docket No.: REGEN1390-6

No fee is deemed necessary in connection with the filing of this Information Disclosure

Statement, because it is being filed prior to the receipt of a first office action on the merits of the

above-captioned application. However, if any fee is required, authorization is hereby given to charge

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Respectfully submitted,

Date: February 3, 2004

Lisa A. Haile, J.D., Ph.D.

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RADE	MARY		OTHER PUBLICATIONS (including Author,	Title, Date, Pertinent Pages, Etc.)			1
XL	DI	В	elshaw et al., P.N.A.S. 93:4604-4607 (1996).				
A	D2	В	erleth et al., J. Biol. Chem. 267:16403-16411 (1992).				
X	D3	В	rown et al., Biochemistry. 26:863-871 (1987).				
X	Di	E	Brinkley, Bioconjugate Chem. 3:2-13 (1992).				
X	D5		Cubitt et al., TIBS. 20:448-455 (1995).	ŧ		•	
XX-	D6	(Cullen et al., J. Inorganic Biochemistry. 21:179-194 (1984).				
A.	D7	-	Deerinck et al., J. Cell of Biol. 126:901-910 (1994).		RECEIVE		1
Vale	D8		Dill et al., Chem. Res. Toxicol. 2:181-185 (1989).		SEP 0 1 199	98	1
放	DS	,	Dill et al., Magnetic Resonance in Chemistry.251074-1077 (1987	7). ·	SERVICE CEN	्रज्ञER UTEP	
Kn	DI	0	Dou, et al., J. Biol. Chem. 269:20410-20416 (1994).				
X	DI	i	Engel et al., Tetrahedron. 49:8761-8770 (1993).				
AN	DI	2	Fancy, et al., Chemistry & Biology. 3:551-559 (1996).	<i>*</i> -			
Al	, DI	13	Frost et al., J. Biol. Chem. 260:2646-2652 (1985).				
W.	A DI	14	Frost et al., Biochem. J. 269:589-595 (1990).				
城	V D	15	Ghadiri et al., J. Am. Chem. Soc. 112:1630-1632 (1990).				
K	10	16	Ghadiri et al., J. Am. Chem. Soc. 112:9633-9635 (1990).				
X	1/2	דנ	Gitler et al., Methods in Enzym. 233:403-415 (1994).				
M		18	Hannestad, et al., Analyt. Biochem. 126:200-204 (1982).				
N	740	19	Ho et al., Nature. 382:822-826 (1996).				
果		20	Hoffman et al., J. Biol. Chem. 267:14005-14011 (1992).				
<u></u>							

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### AFFLEAN: Tiske state		Zinior	PATENT AND TRADEMARK OFFICE	07257/055001	(08/955,059
Notified Part Par	1	en i	(OSC STORM SHOOL IT HOOLISSE),	Tsien et al.	GROUP:
D21 Hoffman et al., Nucleic Acids Res. 19:6337-6338 (1991). D22 Jackson et al., J. Am. Chem. Soc. 113-9391-9392 (1991). D23 Kalef et al., Analyt. Biochem. 212:325-334 (1993). D24 Kalef et al., Methods in Enzym. 233:395-403 (1994). D25 Kaplan et al., Protein Science. 6:399-406 (1997). D26 Li et al., Biochemistry. 34:139-147 (1995). D27 Loring et al., Mol. Brain. Res. 15:113-120 (1992). D28 Lu et al., J. Biol. Chem. 271:5059-5065 (1996). D29 Murphy et al., Current Biology. 7:11 (1997), pq. 8:76 - 8:76. D30 Fike et al., Euro. J. of Neuroscience. 4:1362-1368 (1992). D31 Rossant et al., J. of Neuroscience. 4:1362-1368 (1992). D32 Ruan et al., J. Am. Chem. Soc. 112:9403-9404 (1990). D33 Sharrocks, Gene. 138:105-108 (1994). D34 Shi et al., J. Biol. Chem. 271:9291-9297 (1996). D35 Simons, Jr. et al., J. Biol. Chem. 265:1938-1945 (1990). D36 Smith et al., Cenc. 67:31-40 (1988). D37 Smith J. Biol. Chem. 263:7211-7215 (1988). D38 Spencer et al., Current Biology. 7:839-847 (1996). D39 Spencer et al., Science. 262:1019-1024 (1993).		WHI COL		1601.00 4-19-2002	I KSY
D22 Jackson et al., J. Am. Chem. Soc. 113:9391-9392 (1991). D23 Kalef et al., Analyt. Biochem. 212:325-334 (1993). D24 Kalef et al., Methods in Enzym. 233:395-403 (1994). D25 Kaplan et al., Protein Science. 6-399-406 (1997). D26 Li et al., Biochemistry, 34:139-147 (1995). D27 Loring et al., Mol. Brain. Res. 15:113-120 (1992). D28 Lu et al., J. Biol. Chem. 271:5099-5065 (1996). D29 Murphy et al., Current Biology, 7:11 (1997), pp. 8:76 – §-76. D30 Pike et al., Euro. J. of Neuroscience. 4:1362-1368 (1992). D31 Rossant et al., J. Am. Chem. Soc. 112:9403-9404 (1994). D32 Ruan et al., J. Am. Chem. Soc. 112:9403-9404 (1990). D33 Sharocks, Gene. 138:105-108 (1994). D34 Shi et al., J. Biol. Chem. 271:9291-9297 (1996). D35 Simons, Jr. et al., J. Biol. Chem. 263:7211-7215 (1988). D37 Smith et al. Gene. 67:31-40 (1988). D38 Spencer et al., Current Biology, 7:839-847 (1996). D39 Spencer et al., Science. 262:1019-1024 (1993).	HADEN		Hoffman et al., Nucleic Acids Res. 19:6337-6338 (1991).		·
D23 Kalef et al., Analyt. Biochem. 212:325-334 (1993). D24 Kalef et al., Methods in Enzym. 233:395-403 (1994). D25 Kaplan et al., Protein Science. 6:399-406 (1997). D26 Li et al., Biochemistry. 34:139-147 (1993). D27 Loring et al., Mol. Brain. Res. 15:113-120 (1992). D28 Lu et al., J. Biol. Chem. 271:5059-5065 (1996). D29 Murphy et al., Current Biology. 7:11 (1997), pq. 8:70 - 8-76. D30 Pike et al., Euro. J. of Neuroscience. 4:1362-1368 (1992). D31 Rossant et al., J. Am. Chem. Soc. 112:9403-9404 (1990). D32 Ruan et al., J. Am. Chem. Soc. 112:9403-9404 (1990). D33 Sharrocks, Gene. 138:105-108 (1994). D34 Shi et al., J. Biol. Chem. 265:1938-1945 (1990). D35 Simons, Jr. et al., J. Biol. Chem. 265:1938-1945 (1990). D36 Smith et al., Cene. 67:31-40 (1988). D37 Smith J. Biol. Chem. 263:7211-7215 (1988). D38 Spencer et al., Current Biology. 7:839-847 (1996).	12	<u>ノ</u>			
D25	AL.	JD22	Jackson et al., J. Am. Chem. Soc. 113:9391-9392 (1991).	·	
D25 Kaplan et al., Protein Science. 6:399-406 (1997). D26 Li et al., Biochemistry. 34:139-147 (1995). D27 Loring et al., Mol. Brain. Res. 15:113-120 (1992). D28 Lu et al., J. Biol. Chem. 271:5059-5065 (1996). D29 Murphy et al., Current Biology. 7:11 (1997), pg. 8.76 - §-76. D30 Pike et al., Euro. J. of Neuroscience. 4:1362-1368 (1992). D31 Rossant et al., J. of Neuroscience. 4:1362-1368 (1992). D32 Ruan et al., J. Am. Chem. Soc. 112:9403-9404 (1994). D33 Sharrocks, Gene. 138:105-108 (1994). D34 Shi et al., J. Biol. Chem. 271:9291-9297 (1996). D35 Simons, Jr. et al., J. Biol. Chem. 265:1938-1945 (1990). D36 Smith et al., Gene. 67:31-40 (1988). D37 Smith J. Biol. Chem. 263:7211-7215 (1988). D38 Spencer et al., Current Biology. 7:839-847 (1996).	3/L	D23	Kalef et al., Analyt. Biochem. 212:325-334 (1993).		
D26 Li et al., Biochemistry. 34:139-147 (1995). D27 Loring et al., Mol. Brain. Res. 15:113-120 (1992). D28 Lu et al., J. Biol. Chem. 271:5059-5065 (1996). D29 Murphy et al., Current Biology. 7:11 (1997), pq. & 70 - \$-76. D30 Fike et al., Euro. J. of Neuroscience. 4:1362-1368 (1992). D31 Rossant et al., J. of Neurochemistry. 62:1368-1374 (1994). D32 Ruan et al., J. Am. Chem. Soc. 112:9403-9404 (1990). D33 Sharrocks, Gene. 138:105-108 (1994). D34 Shi et al., J. Biol. Chem. 271:9291-9297 (1996). D35 Simons, Jr. et al., J. Biol. Chem. 265:1938-1945 (1990). D36 Smith et al. Gene. 67:31-40 (1988). D37 Smith J. Biol. Chem. 263:7211-7215 (1988). D38 Spencer et al., Current Biology. 7:839-847 (1996).	AND	624	Kalef et al., Methods in Enzym. 233:395-403 (1994).		·
D27 Loring et al., Mol. Brain. Res. 15:113-120 (1992). D28 Lu et al., J. Biol. Chem. 271:5059-5065 (1996). D29 Murphy et al., Current Biology. 7:11 (1997), pq. & 70 — 476. D30 Pike et al., Euro. J. of Neuroscience. 4:1362-1368 (1992). D31 Rossant et al., J. of Neuroscience. 4:1362-1368 (1992). D32 Ruan et al., J. Am. Chem. Soc. 112:9403-9404 (1990). D33 Sharrocks, Gene. 138:105-108 (1994). D34 Shi et al., J. Biol. Chem. 271:9291-9297 (1996). D35 Simons, Jr. et al., J. Biol. Chem. 265:1938-1945 (1990). D36 Smith et al. Gene. 67:31-40 (1988). D37 Smith J. Biol. Chem. 263:7211-7215 (1988). D38 Spencer et al., Current Biology. 7:839-847 (1996). D39 Spencer et al., Science. 262:1019-1024 (1993).	M	D25	Kaplan et al., Protein Science. 6:399-406 (1997).		
D28 Lu et al., J. Biol. Chem. 271:5059-5065 (1996). D29 Murphy et al., Current Biology. 7:11 (1997), pq. & 70 - & 76. D30 Pike et al., Euro. J. of Neuroscience. 4:1362-1368 (1992). D31 Rossant et al., J. of Neuroscience. 4:1362-1368 (1994). D32 Ruan et al., J. Am. Chem. Soc. 112:9403-9404 (1990). D33 Sharrocks, Gene. 138:105-108 (1994). D34 Shi et al., J. Biol. Chem. 271:9291-9297 (1996). D35 Simons, Jr. et al., J. Biol. Chem. 265:1938-1945 (1990). D36 Smith et al., Gene. 67:31-40 (1988). D37 Smith J. Biol. Chem. 263:7211-7215 (1988). D38 Spencer et al., Current Biology. 7:839-847 (1996).	BY	D26	Li et al., Biochemistry. 34:139-147 (1995).	· · · · · · · · · · · · · · · · · · ·	
D29 Murphy et al., Current Biology. 7:11 (1997), Pg. 8 76 - 8 76. D30 Pike et al., Euro. J. of Neuroscience. 4:1362-1368 (1992). D31 Rossant et al., J. of Neurosciencistry. 62:1368-1374 (1994). D32 Ruan et al., J. Am. Chem. Soc. 112:9403-9404 (1990). D33 Sharrocks, Gene. 138:105-108 (1994). D34 Shi et al., J. Biol. Chem. 271:9291-9297 (1996). D35 Simons, Jr. et al., J. Biol. Chem. 265:1938-1945 (1990). D36 Smith et al., Gene. 67:31-40 (1988). D37 Smith J. Biol. Chem. 263:7211-7215 (1988). D38 Spencer et al., Current Biology. 7:839-847 (1996). D39 Spencer et al., Science. 262:1019-1024 (1993).	M	D27	Loring et al., Mol. Brain. Res. 15:113-120 (1992).		
D30 Pike et al., Euro. J. of Neuroscience. 4:1362-1368 (1992). D31 Rossant et al., J. of Neurochemistry. 62:1368-1374 (1994). D32 Ruan et al., J. Am. Chem. Soc. 112:9403-9404 (1990). D33 Sharrocks, Gene. 138:105-108 (1994). D34 Shi et al., J. Biol. Chem. 271:9291-9297 (1996). D35 Simons, Jr., et al., J. Biol. Chem. 265:1938-1945 (1990). D36 Smith et al., Gene. 67:31-40 (1988). D37 Smith J. Biol. Chem. 263:7211-7215 (1988). D38 Spencer et al., Current Biology. 7:839-847 (1996). D39 Spencer et al., Science. 262:1019-1024 (1993).	KL	D28	Lu et al., J. Biol. Chem. 271:5059-5065 (1996).		
D31 Rossant et al., J. of Neurochemistry. 62:1368-1374 (1994). D32 Ruan et al., J. Am. Chem. Soc. 112:9403-9404 (1990). D33 Sharrocks, Gene. 138:105-108 (1994). D34 Shi et al., J. Biol. Chem. 271:9291-9297 (1996). D35 Simons, Jr. et al., J. Biol. Chem. 265:1938-1945 (1990). D36 Smith et al., Gene. 67:31-40 (1988). D37 Smith J. Biol. Chem. 263:7211-7215 (1988). D38 Spencer et al., Current Biology. 7:839-847 (1996). D39 Spencer et al., Science. 262:1019-1024 (1993).	XI.	D29	Murphy et al., Current Biology. 7:11 (1997), 17. 870-876	•	
D32 Ruan et al., J. Am. Chem. Soc. 112:9403-9404 (1990). D33 Sharrocks, Gene. 138:105-108 (1994). D34 Shi et al., J. Biol. Chem. 271:9291-9297 (1996). D35 Simons, Jr. et al., J. Biol. Chem. 265:1938-1945 (1990). D36 Smith et al. Gene. 67:31-40 (1988). D37 Smith J. Biol. Chem. 263:7211-7215 (1988). D38 Spencer et al., Current Biology. 7:839-847 (1996). D39 Spencer et al., Science. 262:1019-1024 (1993).	12	D30	Pike et al., Euro. J. of Neuroscience. 4:1362-1368 (1992).	·	
D33 Sharrocks, Gene. 138:105-108 (1994). D34 Shi et al., J. Biol. Chem. 271:9291-9297 (1996). D35 Simons, Jr., et al., J. Biol. Chem. 265:1938-1945 (1990). D36 Smith et al., Gene. 67:31-40 (1988). D37 Smith J. Biol. Chem. 263:7211-7215 (1988). D38 Spencer et al., Current Biology. 7:839-847 (1996). D39 Spencer et al., Science. 262:1019-1024 (1993).	1	D31	Rossant et al., J. of Neurochemistry. 62:1368-1374 (1994).		
D34 Shi et al., J. Biol. Chem. 271:9291-9297 (1996). D35 Simons, Jr., et al., J. Biol. Chem. 265:1938-1945 (1990). D36 Smith et al., Gene. 67:31-40 (1988). D37 Smith J. Biol. Chem. 263:7211-7215 (1988). D38 Spencer et al., Current Biology. 7:839-847 (1996). D39 Spencer et al., Science. 262:1019-1024 (1993).	fr	D32	Ruan et al., J. Am. Chem. Soc. 112:9403-9404 (1990).		
D35 Simons, Jr. et al., J. Biol. Chem. 265:1938-1945 (1990). D36 Smith et al., Gene. 67:31-40 (1988). D37 Smith J. Biol. Chem. 263:7211-7215 (1988). D38 Spencer et al., Current Biology. 7:839-847 (1996). D39 Spencer et al., Science. 262:1019-1024 (1993).	XR	D33	Sharrocks, Gene. 138:105-108 (1994).		
D36 Smith et al., Gene, 67:31-40 (1988). D37 Smith J. Biol. Chem. 263:7211-7215 (1988). D38 Spencer et al., Current Biology. 7:839-847 (1996). D39 Spencer et al., Science, 262:1019-1024 (1993).	越	D34	Shi et al., J. Biol. Chem. 271:9291-9297 (1996).		
D36 Smith et al., Gene. 67:31-40 (1988). D37 Smith J. Biol. Chem. 263:7211-7215 (1988). D38 Spencer et al., Current Biology. 7:839-847 (1996). D39 Spencer et al., Science. 262:1019-1024 (1993).	Kr	D35	Simons, Jr., et al., J. Biol. Chem. 265:1938-1945 (1990).		
D38 Spencer et al., Current Biology. 7:839-847 (1996). D39 Spencer et al., Science. 262:1019-1024 (1993).	X	D36	Smith et al., Gene. 67:31-40 (1988).		
Spencer et al., Current Biology. 7:839-847 (1996). D39 Spencer et al., Science. 262:1019-1024 (1993).	XX.	D37	Smith J. Biol. Chem. 263:7211-7215 (1988).		
Spencer et al., Science. 262:1019-1024 (1993).	EN.	1	Spencer et al., Current Biology. 7:839-847 (1996).		
1/ // L40	XX	7	Spencer et al., Science, 262:1019-1024 (1993).		
	KU	D40	Stevenson et al., American Chemical Society, 17:2189-2192 (19	78).	•

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f.	INFO	U.S	ATTY. DOCKET NO. 07257/055001 (AURO-028.01us)	SERIAL NO. 10/126,752
3 1 19)C55	,	APPLICANT: Tsien et al. FILING DATE:	GROUP:
	<u> </u>		19-2002	1 165Y
P	D41	Tuchscherer et al., Pure & Appl. Chem. 68:2153:2162 (1996).		
M	D-12	Voordouw et al., Eur. J. Biochem. 118:541-546 (1981).		
W	D43	Welsh et al., Current Biology. 8:617-622 (1997).		
* C	D44	Whittaker et al., Biochem. J. 41:56-62 (1947).		·
熟	D45	TIBS. 20:285-288 (1995).		
V	D46		-	
	D47	,		

INER JEFRE E. Russe DATE CONSIDERED # February 20,2003

Notice of References Cited Application/Control No. 10/126,752 Examiner Jeffrey E. Russel Applicant(s)/Patent Under Reexamination TSIEN ET AL. Page 1 of 1

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	Α	US-5,932,474	08-1999	Tsien et al	435/320.1
*	В	US-6,054,271	04-2000	Tsien et al	435/6
*	С	US-6,008,378	12-1999	Tsien et al	549/207
*	D	US-6,451,569-B1	09-2002	Tsien et al	435/174
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FOREIGN PATENT DOCUMENTS

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